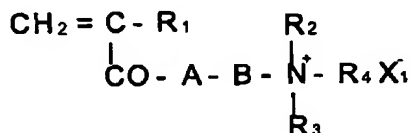


Application No. 10/517,011  
Filed: July 7, 2005  
TC Art Unit: 1731  
Confirmation No.: 2774

AMENDMENT TO THE CLAIMS

1. (WITHDRAWN)

2. (CURRENTLY AMENDED) A water-soluble polymer dispersion according to Claim 1, ~~wherein the~~ in which a water-soluble polymer having at least one type of ionicity selected from among said cationicity and said amphotericity and occurring in the form of fine particles with a particle size of not greater than 100  $\mu\text{m}$  and a polyalkylenimine in the sulfate salt form coexist, wherein the polymer is produced by dispersion polymerization of a monomer (or monomer mixture) comprising 5 to 100 mole percent of a monomer represented by the general formula (1) and/or (2) given below, 0 to 50 mole percent of a monomer represented by the general formula (3) given below and 0 to 95 mole percent of a water-soluble nonionic monomer with stirring in the presence of said polyalkylenimine and/or modified polyalkylenimine in the sulfate salt form, ~~if necessary further in the presence of a necessary amount of a water soluble inorganic salt.~~

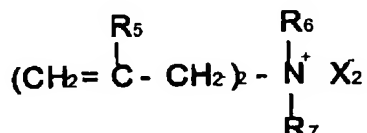


General formula (1)

(In the general formula (1),  $\text{R}_1$  is a hydrogen atom or a methyl group,  $\text{R}_2$  and  $\text{R}_3$  may be the same or different and each is an alkyl or an alkoxy group containing 1 to 3 carbon atoms or a benzyl group,  $\text{R}_4$  is a hydrogen atom, an alkyl or alkoxy group containing

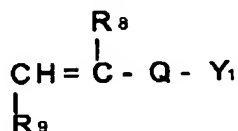
Application No. 10/517,011  
 Filed: July 7, 2005  
 TC Art Unit: 1731  
 Confirmation No.: 2774

1 to 3 carbon atoms or a benzyl group. A represents an oxygen atom or NH, B represents an alkylene or an alkoxy group containing 2 to 4 carbon atoms, and X<sub>1</sub> represents an sulfate anion.)



General formula (2)

(In the general formula (2), R<sub>5</sub> represents a hydrogen atom or a methyl group, R<sub>6</sub> and R<sub>7</sub> each represents an alkyl or an alkoxy group containing 1 to 3 carbon atoms or a benzyl group, and X<sub>2</sub> represents an sulfate anion.)



General formula (3)

(In the general formula (3), R<sub>8</sub> represents a hydrogen atom, a methyl group or a carboxymethyl group, Q represents SO<sub>3</sub>, C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>, CONHC(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SO<sub>3</sub>, C<sub>6</sub>H<sub>4</sub>COO or COO, R<sub>9</sub> represents a hydrogen atom or COOY<sub>2</sub>, and Y<sub>1</sub> or Y<sub>2</sub> represents a hydrogen atom or a cation.)

3. (CURRENTLY AMENDED) A water-soluble polymer dispersion ~~according to Claim 1, wherein the~~ in which a water-soluble polymer having at least one type of ionicity selected from among said anionicity and said nonionicity and occurring in the form of fine particles with a particle size of not greater than 100 μm and a

Application No. 10/517,011

Filed: July 7, 2005

TC Art Unit: 1731

Confirmation No.: 2774

polyalkylenimine in the sulfate salt form coexist, wherein the polymer is produced by dispersion polymerization of a monomer composition (mixture) comprising at least one monomer selected from among monomers represented by said general formula (3) given above and water-soluble nonionic monomers in the presence of said polyalkylenimine and/or modified polyalkylenimine in the sulfate salt form, if necessary further in the presence of a necessary amount of a water soluble inorganic salt.

4-6. (WITHDRAWN)

7. (CURRENTLY AMENDED) A water-soluble polymer dispersion in which a water-soluble polymer having at least one type of ionicity selected from among cationicity, an amphotericity, a nonionicity and an anionicity and occurring as fine particles with a particle size of not greater than 100  $\mu$ m and a polyalkylenimine in the sulfate salt form coexist,  
~~according to Claim 1,~~ wherein the polyalkylenimine is polyethylenimine.

8. (CURRENTLY AMENDED) A water-soluble polymer dispersion in which a water-soluble polymer having at least one type of ionicity selected from among cationicity, an amphotericity, a nonionicity and an anionicity and occurring as fine particles with a particle size of not greater than 100  $\mu$ m and a polyalkylenimine in the sulfate salt form coexist,  
wherein the polyalkylenimine ~~and/or modified polyalkylenimine~~ amounts to 20 to 200% by mass relative to the water-soluble ~~polymer having at least one type of ionicity selected from among~~

-7-

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Application No. 10/517,011

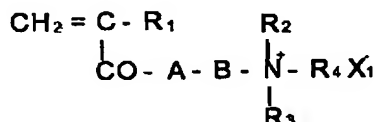
Filed: July 7, 2005

TC Art Unit: 1731

Confirmation No.: 2774

~~said cationicity, said amphotericity, said nonionicity and said anionicity.~~

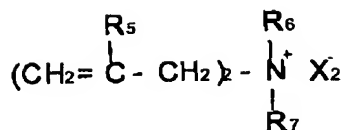
9. (CURRENTLY AMENDED) A method of producing water-soluble polymer dispersions, wherein a dispersion of fine particles of a polymer having at least one type of ionicity selected from among cationicity and amphotericity is produced by subjecting a monomer (or monomer mixture) comprising 5 to 100 mole percent of a monomer represented by the general formula (1) and/or (2) given below, 0 to 50 mole percent of a monomer represented by the general formula (3) given below and 0 to 95 mole percent of a water-soluble nonionic monomer to dispersion polymerization with stirring in the presence of a polyalkylenimine ~~and/or a modified polyalkylenimine~~ in the sulfate salt form, ~~if necessary further in the presence of a necessary amount of a water-soluble inorganic salt.~~



General formula (1)

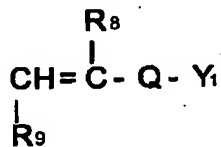
(In the general formula (1), R<sub>1</sub> is a hydrogen atom or a methyl group, R<sub>2</sub> and R<sub>3</sub> may be the same or different and each is an alkyl or alkoxy group containing 1 to 3 carbon atoms or a benzyl group, R<sub>4</sub> is a hydrogen atom, an alkyl or alkoxy group containing 1 to 3 carbon atoms or a benzyl group. A represents an oxygen atom or NH, B represents an alkylene or alkoxy group containing 2 to 4 carbon atoms, and X<sub>1</sub> represents an sulfate anion.)

Application No. 10/517,011  
 Filed: July 7, 2005  
 TC Art Unit: 1731  
 Confirmation No.: 2774



General formula (2)

(In the general formula (2), R<sub>5</sub> represents a hydrogen atom or a methyl group, R<sub>6</sub> and R<sub>7</sub> each represents an alkyl or alkoxy group containing 1 to 3 carbon atoms or a benzyl group, and X<sub>2</sub> represents an sulfate anion.)



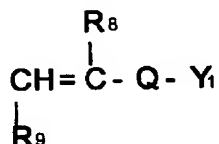
General formula (3)

(In the general formula (3), R<sub>8</sub> represents a hydrogen atom, a methyl group or a carboxymethyl group, Q represents SO<sub>3</sub>, C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>, CONHC(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SO<sub>3</sub>, C<sub>6</sub>H<sub>4</sub>COO or COO, R<sub>9</sub> represents a hydrogen atom or COOY<sub>2</sub>, and Y<sub>1</sub> or Y<sub>2</sub> represents a hydrogen atom or a cation.)

10. (CURRENTLY AMENDED) A method of producing water-soluble polymer dispersions, wherein a dispersion of fine particles of a polymer having at least one type of ionicity selected from among anionicity and nonionicity is produced by subjecting a monomer composition (mixture) comprising at least one monomer selected from among monomers represented by the general formula (3) given below and water-soluble nonionic monomers to dispersion polymerization with stirring in the presence of a polyalkylenimine

Application No. 10/517,011  
 Filed: July 7, 2005  
 TC Art Unit: 1731  
 Confirmation No.: 2774

~~and/or a modified polyalkylenimine in the sulfate salt form, if necessary further in the presence of a necessary amount of a water soluble inorganic salt.~~



General formula (3)

(In the general formula (3),  $R_8$  represents a hydrogen atom, a methyl group or a carboxymethyl group,  $Q$  represents  $SO_3$ ,  $C_6H_4SO_3$ ,  $CONHC(CH_3)_2CH_2SO_3$ ,  $C_6H_4COO$  or  $COO$ ,  $R_9$  represents a hydrogen atom or  $COOY_2$ , and  $Y_1$  or  $Y_2$  represents a hydrogen atom or a cation.)

11. (CURRENTLY AMENDED) A method use of using the water-soluble polymer dispersion according to any of Claims ~~1-2, 3, 7, to 8, 23, 27, 31 and 33 to 35~~, wherein the water-soluble polymer dispersion is added to paper ~~stuff~~ making raw material before papermaking for pretreatment thereof.

12. (CURRENTLY AMENDED) A method use of using the water-soluble polymer dispersion according to any of Claims ~~1-2, 3, 7, to 8, 23, 27, 31 and 33 to 35~~, wherein the water-soluble polymer dispersion is added to paper ~~stuff~~ making raw material before papermaking to thereby improve the freeness thereof.

13. (CURRENTLY AMENDED) A method use of using the water-soluble polymer dispersion according to any of Claims ~~1-2, 3, 7, to 8, 23, 27, 31 and 33 to 35~~, wherein the water-soluble polymer dispersion is added to paper ~~stuff~~ making raw material before papermaking, in

Application No. 10/517,011  
Filed: July 7, 2005  
TC Art Unit: 1731  
Confirmation No.: 2774

which a sizing agent coexists, to thereby improve the degree of sizing.

14. (CURRENTLY AMENDED) A method use of using the water-soluble polymer dispersion according to any of Claims 1-2, 3, 7, ~~to~~ 8, 23, 27, 31 and 33 ~~to~~ 35, wherein the water-soluble polymer dispersion is added to paper ~~stuff~~ making raw material before papermaking to thereby improve the yield, followed by papermaking.

15. (CURRENTLY AMENDED) A method use of using the water-soluble polymer dispersion according to any of Claims 1-2, 3, 7, ~~to~~ 8, 23, 27, 31 and 33 ~~to~~ 35, wherein the water-soluble polymer dispersion is added to paper ~~stuff~~ making raw material before papermaking in combination with an inorganic and/or organic anionic substance to thereby improve the yield, followed by papermaking.

16. (CURRENTLY AMENDED) A method use of using the water-soluble polymer dispersion according to any of Claims 1-2, 3, 7, ~~to~~ 8, 23, 27, 31 and 33 ~~to~~ 35, wherein the water-soluble polymer dispersion is added to organic sludge or paper mill-derived sludge to cause flocculation, followed by dewatering by means of dewatering equipment.

17. (CURRENTLY AMENDED) A method use of using the water-soluble polymer dispersion according to any of Claims 1-2, 3, 7, ~~to~~ 8, 23, 27, 31 and 33 ~~to~~ 35, wherein the water-soluble polymer dispersion is added to organic sludge or paper mill-derived sludge in combination with an amphoteric or anionic water-soluble polymer to

Application No. 10/517,011  
Filed: July 7, 2005  
TC Art Unit: 1731  
Confirmation No.: 2774

cause flocculation, followed by dewatering by means of dewatering equipment.

18-22. (WITHDRAWN)

23. (PREVIOUSLY PRESENTED) A water-soluble polymer dispersion according to Claim 2, wherein the polyalkylenimine is polyethylenimine.

24-26. (WITHDRAWN)

27. (CURRENTLY AMENDED) A water-soluble polymer dispersion according to Claim 2, wherein the polyalkylenimine ~~and/or modified polyalkylenimine~~ amounts to 20 to 200% by mass relative to the water-soluble polymer ~~having at least one type of ionicity selected from among said cationicity, and said amphotericity, said nonionicity and said anionicity.~~

28-30. (WITHDRAWN)

31. (CURRENTLY AMENDED) A water-soluble polymer dispersion according to Claim 7, wherein the polyalkylenimine ~~and/or modified polyalkylenimine~~ amounts to 20 to 200% by mass relative to the water-soluble polymer ~~having at least one type of ionicity selected from among said cationicity, said amphotericity, said nonionicity and said anionicity.~~

32-34. (WITHDRAWN)



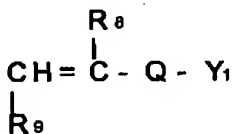
Application No. 10/517,011

Filed: July 7, 2005

TC Art Unit: 1731

Confirmation No.: 2774

35. (CURRENTLY AMENDED) A water-soluble polymer dispersion according to Claim 31, wherein the water-soluble polymer ~~having at least one type of ionicity selected from among said anionicity and said nonionicity and occurring in the form of fine particles is~~ produced by dispersion polymerization of a monomer composition (mixture) comprising at least one monomer selected from among monomers represented by said general formula (3) given ~~above~~ below and water-soluble nonionic monomers in the presence of said polyalkylenimine and/or ~~modified polyalkylenimine~~ in the sulfate salt form, ~~if necessary further in the presence of a necessary amount of a water soluble inorganic salt.~~



General formula (3)

(In the general formula (3),  $R_8$  represents a hydrogen atom, a methyl group or a carboxymethyl group,  $Q$  represents  $SO_3$ ,  $C_6H_4SO_3$ ,  $CONHC(CH_3)_2CH_2SO_3$ ,  $C_6H_4COO$  or  $COO$ ,  $R_9$  represents a hydrogen atom or  $COOY_2$ , and  $Y_1$  or  $Y_2$  represents a hydrogen atom or a cation.)